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TITLE : PRODUCTION OF SILANE COMPOUND

ABSTRACT : PROBLEM TO BE SOLVED: To provide a method for producing a silane compound, enabling the production of the silane compound having a specific structure at a low cost in a high purity and further enabling the control of the production of a disiloxane compound which is a useful by-product, by reacting a specific oxysilane with a specific disiloxane and a carboxylic acid in the presence of a strong acid.

SOLUTION: This method for producing a silane compound of the formula: $R_1Si(OSiR_3R_4R_5)_3$ comprises reacting (A) a compound of the formula: $R_1Si(OR_2)_3$ (R_1 is a $\leq 15C$ alkyl, an aryl or the like; R_2 is a $\leq 15C$ alkyl, a $\leq 10C$ arylalkyl or the like) (for example, 3-methacryloyloxypropyltrimethoxysilane) with (B) a compound of the formula: $(R_3R_4R_5Si)_2O$ (R_3, R_4, R_5 are each H, a $\leq 15C$ alkyl or the like) (for example, hexamethyldisiloxane) and (C) a carboxylic acid (preferably acetic acid) in the presence of a strong acid (preferably concentrated sulfuric acid). It is preferable for the control of by-products that the component A is dropwisely added and reacted with a mixture of the components B, C and the strong acid at -10 to $0^\circ C$ for a dropping time of ≤ 30 min and then aged.

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